CONSERVATION

Morro Bay is known for a wide range of unique natural resources that include but are not limited to the coastline, estuary, wetlands, geologic features, and forests. These natural resources are critical to Morro Bay's economy and community character, and offer opportunities for visitors and residents to participate in healthy activities. The City must prioritize these resources when planning for future development in order to ensure that growth does not interfere with the community benefits they provide for local residents and with the coastal access and recreation provided for visitors. At the same time, preserving the integrity of these resources requires the City to conserve energy and water, reduce air pollution and greenhouse gas emissions, and minimize waste.

Morro Bay is a coastal city that prioritizes its natural resources because of their aesthetic, recreational, environmental, and health-related benefits. Conservation Element goals and policies seek to reconcile conflicts between community resource demands and conservation needs. The element also discusses the community benefits derived from these resources, such as healthy food and clean water, climate change mitigation, and recreation. These benefits are also valuable to the tourism industry, which represents a significant portion of the local economy.

OVERVIEW

Scope and Content

The Conservation Element is a requirement of California Government Code Section 65302(d). The statute requires that the element identify and discuss resources including water and its hydraulic forces, forests, soils, harbors, fisheries, wildlife, minerals, and energy. The Conservation Element must also consider plans for development and their effect on all natural resources located on public lands, including water resources, supply, and quality. It must explore greenhouse gas emissions and air quality impacts, and outline a strategy to work in coordination with countywide agencies responsible for managing conservation efforts. In addition to the requirements of general plan law, the Conservation Element also addresses provisions of the Coastal Act related to Environmentally Sensitive Habitat Areas (ESHA), water quality, energy resources, viewsheds, and wetlands and estuaries.

The Coastal Act (Sections 30001, 30233, 30236, and 30502) also directs local governments to address the community's ecological balance; natural resource protection; mitigation measures for diking, filling, or dredging; water supply; and designation of sensitive coastal resource areas in its LCP. The Conservation Element meets both state and Coastal

Commission requirements for open space provision, in addition addressing to locally important issues.

Relationship to Other Elements

The Conservation Element corresponds to the Land Use, Housing, and Circulation elements because plans for development and transportation infrastructure will impact the community's plans for conservation. Open Space Element policies also relate to the Conservation Element, as plans for lands such as parks, trails, and beach access will be coordinated with conservation efforts occurring on those lands. The Conservation Element also correlates with the Public Safety Element, as certain areas of the city may need preservation or extra protection due to the presence of natural hazards.

RESILIENCY APPROACH

Morro Bay's natural resources will be impacted by sea level rise and extreme weather events. Some natural habitat areas will struggle to thrive in changing climate and environmental conditions. Population and economic growth may also interfere with natural habitats, strain water supply, reduce air quality, and increase greenhouse gas emissions.

The Conservation Element addresses natural resources and their role in the community, seeking to balance the City's development plans with conservation priorities. It also addresses climate change and emphasizes policies that will mitigate anticipated impacts when possible and adapt to changes when mitigation is not possible. Conservation goals can be achieved by implementing policies that preserve sensitive habitats, promote resource conservation, and decrease emissions and waste. The Conservation Element discusses the full range of resources Morro Bay has to offer, emphasizing resource conservation and resiliency throughout all goals and policies.

KEY ISSUES

Morro Bay is surrounded by a variety of land, air, water, and energy resources. These resources may be impacted by development, water consumption, climate change, and a variety of other factors.

Biological Communities

Morro Bay's key natural features include its coastline, estuary, and woodlands comprising diverse shrub, herbaceous, terrestrial, and aquatic habitats. These resources are vulnerable to multiple impacts of climate

change, including drought, flood, and sea level rise, which may exceed the habitats' natural capacity to survive.

Citywide Habitats

Citywide habitats in Morro Bay are summarized in **Table C-1**. Environmentally Sensitive Habitat Areas within the coastal zone are described in the following section. In some cases, citywide habitats overlap with ESHA.

Table C-1:
Citywide Habitats in Morro Bay

Community/Habitat	Sub-communities
Woodlands/Forests	Coastal Oak, Montane Hardwood, Montane Hardwood-Coniferous, Montane Riparian, Valley Foothill Riparian, Eucalyptus
Shrub-Dominated Habitats	Chamise-Redshank Chaparral, Coastal Scrub, Mixed Chaparral
Herbaceous-Dominated Habitats	Coastal Salt Marsh, Coastal Dune Scrub, Mudflats, Annual Grasslands, Perennial Grassland, Pasture
Developed and Sparsely/ Nonvegetated Habitats	Agriculture, Urban, Barren
Wetlands and Water Features	Riverine, Lacustrine, Estuarine, Estuarine and Marine Wetlands, Freshwater Emergency Wetlands, Freshwater Forested/Shrub Wetlands, Freshwater Ponds, Palustrine Systems

The majority of Morro Bay's land area is considered urban. Wetlands, shrublands, and forests are located primarily in south Morro Bay, and herbaceous and riparian habitats are located throughout the planning area. There is one agricultural region in eastern central Morro Bay, where primarily tree crops like avocados and annual row crops are located. **Figure C-1** shows a map of all known citywide habitat locations in Morro Bay. There may be additional habitats in Morro Bay that have not yet been mapped.

Figure C-1:
Citywide Habitats in Morro Bay

Environmentally Sensitive Habitat Areas

Section 30107.5 of the Coastal Act defines Environmentally Sensitive Habitat Areas as those habitats that are particularly rare or valuable due to their nature or role in the ecosystem. ESHA are usually areas that can be easily disturbed by human activities, and they should therefore be identified and protected. Sections 30240, 30233, 30263, and 30609.5 of the Coastal Act state that resource extraction, development, and sales or transfers should be limited or prohibited in ESHA in order to ensure that these areas remain intact. These areas should be protected against habitat disruption by strategically siting development and extraction facilities so that they will not interfere with or degrade ESHA. This includes land uses that are adjacent to ESHA and may impact them. Only development that is dependent on those resources should be allowed in those areas.

In Morro Bay's coastal zone, ESHA are designated within three major habitat types: (1) aquatic resources and wetland habitat, (2) other sensitive natural communities, and (3) breeding and overwintering sites. Each of these habitats is described in greater detail below.

Aquatic Resources and Wetland Habitats

These habitats include year-round and seasonal rivers and streams, ~~freshwater emergent~~ wetlands (including fresh and salt water marshes), and willow woodland and scrub environments. Waterways where these resources are found include Chorro Creek, Morro Creek, Alva Paul Creek, and Toro Creek, in addition to several unnamed creeks. Several of these creeks and tributaries terminate in the Morro Bay estuary and drain directly into the Pacific Ocean. Riparian woodland and willow scrub areas and wetlands are present around the waterways. Each of these habitats is essential and provides benefits such as special habitats for endangered and rare species, improved water quality of downstream receiving waters, and groundwater recharge.

Other Sensitive Natural Communities

This habitat includes four types of non-wetland sensitive natural communities, including foredune, backdune/dune scrub, coastal bluff, and coastal strand environments. They are all located directly on the coast of Morro Bay and run the extent of the city limits. These sensitive communities provide habitats for rare species and also directly impact water quality in the Pacific Ocean.

Breeding and Overwintering Sites

These habitats are located in small pockets throughout the coastal zone and include areas known as roosts, nests, and rookeries. They are important breeding and overwintering sites for herons, egrets, cormorants, and peregrine falcons. The areas also include documented monarch butterfly overwintering roosts in groves throughout the coastal zone. These habitats ~~should~~ must be preserved due to their importance to these rare species.

Figure C-2 shows the general location of ESHA in Morro Bay, but other area mapped but meet the definition of ESHA shall also be considered ESHA. Maps detail can be found in the City of Morro Bay ESHA Review and Current Conditi report.

Commented [KK1]: This map shows the beach as ESHA. As discussed previously, beaches probably shouldn't be called out as ESHA. If there is a way to show the dune and strand features only, that would be helpful.

Also, I have not compared this map to any existing LCP ESHA map/ESHA overlay, so please ensure that all existing ESHA is incorporated into this map (i.e., we are losing existing designated ESHA).

Figure C-2:
Environmentally Sensitive Habitat Areas (ESHA)

Greenprint

GOALS AND POLICIES

GOAL C-1: Sensitive habitats are protected from the negative impacts of development and recreational uses.

POLICY C-1.1: **Sensitive Habitats.** Protect sensitive habitats from urban encroachment and runoff.

POLICY C-1.2: **Habitat Protection.** Determine and prioritize areas in need of strengthened protections, while maintaining the current level of protection for other existing ESHA. Some less disruptive u allowed within ESHA areas. These uses ~~would include~~shall be limited to resource-dependent uses such as habitat creation and enhancement, restoration activities, scientific study, and low-impact coastal access.

Commented [KK2]: I'm not really sure what this means.

POLICY C-1.3: **ESHA Protection.** Protect ESHAs against disruption of h and only allow uses within those areas that are depend resources. Disruption of habitat values includes when the physical habitat is significantly altered or when species diversity or the abundance or viability of species populations is reduced. The type of proposed development, the particulars of its design, and its location in relation to the habitat area will affect the determination of disruption. Restoration activities or repair of existing facilities may~~will~~ not be considered disruption the disruption is minor, ~~if they result in~~ temporary or incidental, and impacts appropriately mitigated ~~disruption~~.

Commented [KK3]: Also needed to be included is language addressing wetland uses (30233) and streams uses (30236). These are more specific than the general 30240 ESHA language.

POLICY C-1.4: **Biological Site Assessments.** Development proposals within or adjacent to ESHA will be reviewed subject to a biological site assessment prepared by a qualified biologist. The purpose of the biological site assessment is to confirm the extent of the ESHA, document any site constraints and the presence of other sensitive biological resources, recommend buffers, development timing, mitigation measures including precise required setbacks, provide a site restoration program where necessary, and provide other information, analysis and modifications appropriate to protect the resource.

POLICY C-1.5: **ESHA Buffers.** Provide buffers for wetlands, streams vegetation. Establish buffers for terrestrial ESHA to provi from development impacts. Maintain such buffers in a natu allowing only those uses that will not significantly degrade t

Commented [KK4]: The numeric distances should be included here. We tend to use 100 feet as a standard ESHA buffer, with allowance for reduction if certain findings are made.

Commented [KK5]: How does this mesh with the previous part of the sentence requiring buffers to be left in a natural condition? I would say that the only allowed uses in the buffer should be the uses allowed in the ESHA itself.

POLICY C-1.6: **Endangered Species Habitats.** Minimize the recreational use, such as hiking and birdwatching, of rare or endangered species habitats.

POLICY C-1.7: **Takings.** If development in an ESHA must be allowed to avoid an unconstitutional taking, the amount and type of development allowed shall be the least necessary to avoid a takings. Unavoidable impacts must be minimized, temporary impact areas within and immediately adjoining (within 25 feet) ESHA must be restored upon completion, all adverse impacts to ESHA must be fully mitigated in kind (i.e., the mitigation must replace lost habitat functions and values).

POLICY C-1.8: **Partnerships.** Foster and develop public/private partnerships to protect natural resources.

POLICY C-1.9: **Updates to ESHA Resources**. Ensure that all information on ESHA is updated regularly, including but not limited to GIS and database resources.

POLICY C-1.10: **Habitat Restoration.** Create, improve, and acquire areas that enhance habitat resources and identify, prioritize, and restore them as habitat key areas that link fragmented open space wildlife habitat, as funding and land are available.

POLICY C-1.11: **Interagency Collaboration.** Work with local and state jurisdictions to preserve and extend the habitats located in and surrounding the planning area of Morro Bay.

POLICY C-1.12: **Improvements to Open Space Areas.** Improve remaining open space areas in wetlands and along the coast to the greatest extent possible to improve existing natural habitats and prevent the deterioration of local wildlife.

POLICY C-1.13: **Eelgrass Protection.** Continue to address and mitigate eelgrass impacts on a project-by-project basis using implementation guidelines from the California Eelgrass Mitigation Policy (CEMP) to promote eelgrass growth in the bay.

Commented [KK6]: This might be a good opportunity to better address eelgrass, including where such mitigation is to take place to better pool resources.

Air Quality

Morro Bay is located in the South Central Coast Air Basin (SCCAB), which includes all of San Luis Obispo, Santa Barbara, and Ventura counties. The

San Luis Obispo County Air Pollution Control District (SLOAPCD) is responsible for managing air quality in the San Luis Obispo County portion of the SCCAB, which includes Morro Bay. Morro Bay is located in the Coastal Plateau region based on its geography and climate. The climate in this region is strongly influenced by its proximity to the ocean and pressure centers therein. The coastal area yields higher levels of air pollutants than more rural parts of the county as a result of greater development and higher population.

Air Pollutants in Morro Bay

Air pollutants can cause harm to humans, animals, and plants that are exposed to them. Criteria pollutants are those recognized in national air quality standards and include carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. Common air pollutants in Morro Bay include ozone, carbon monoxide, nitrogen dioxide, and particulate matter.

Ozone

Ozone is a pungent, colorless, toxic gas that can cause respiratory and eye irritation and possible changes in lung function. Ozone is formed by a photochemical reaction that occurs during fuel combustion and the evaporation of organic solvents. Because it requires sunlight to form, ozone mainly occurs between April and October. Children, the elderly, people with respiratory disorders, and those who exercise outdoors are most vulnerable to ozone.

Carbon Monoxide

Carbon monoxide is a colorless, odorless, poisonous gas that is primarily a product of automobile exhaust and internal combustion engines. At high concentrations, it can reduce the amount of oxygen in the blood and cause impaired mental abilities and heart difficulties, particularly in people with chronic diseases.

Nitrogen Dioxide

Nitrogen dioxide is a byproduct of fossil fuel combustion and is mainly a result of motor vehicles, industrial boilers, and furnaces. At higher concentrations, it may be related to chronic pulmonary fibrosis and an increase in bronchitis in young children. Nitrogen dioxide can also contribute to the formation of particulate matter and acid rain.

Particulate Matter

Particulate matter contains two categories: $PM_{2.5}$ (fine particulate matter; no more than 2.5 microns in diameter) and PM_{10} (small particulate matter; no more than 10 microns in diameter). They are usually in the form of dust particles, nitrates, and sulfates. Small particulates are usually a byproduct of soil erosion and dust in the air, and fine particulates are typically a product of combustion processes. Particulate matter can cause respiratory problems and interfere with the body's ability to clear the respiratory tract.

Greenprint

Pollution Sources

Morro Bay's air polluting sources include stationary, mobile, and area-wide sources. Stationary sources include dry cleaning businesses, gasoline stations, automobile body shops, and industrial developments. Mobile sources include all transportation vehicles such as ships, airplanes, trains, and automobiles. Area-wide sources include residential water heating, consumer products, dust from unpaved roads, and crop tilling.

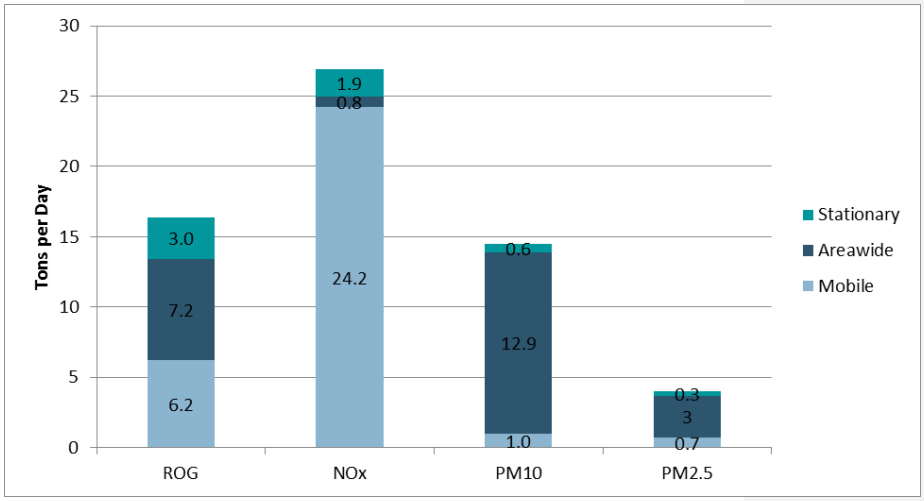
State Attainment Levels

The California Air Resources Board (CARB) has established ambient air quality standards to identify pollutant levels considered safe for the public and to encourage communities not to exceed these levels. Local air resource boards are designated as attainment, nonattainment, or unclassified for these standards. The SLOAPCD manages regional attainment levels in San Luis Obispo County.

Data and Trends

CARB developed an emissions inventory for San Luis Obispo County for 2015, which displayed the major pollutant sources in the county. As shown in **Figure C-3**, mobile pollution sources and agriculture were the largest contributors to pollution levels.

Figure C-3:
San Luis Obispo County 2015 Emissions Inventory – Criteria Air Pollutants



CARB analyzes air quality data from regional networks and provides this information for criteria air pollutants. Data show that Morro Bay exceeded state standards for PM_{10} (small

particulate matter) once in 2012 and three times in 2013. No other pollutants in Morro Bay have exceeded state standards.

According to a report from the SLOAPCD on air quality trends from 1991 to 2011, there have been significant improvements in air quality in the past 20 years. Ozone levels have fallen in some of the most highly concentrated parts of San Luis Obispo County. Morro Bay continues to experience low levels of ozone and rarely exceeds state and federal standards.

In 2001, the SLOAPCD adopted a Clean Air Plan. This plan included land use and transportation management strategies to reduce the air quality impacts of urban development. These measures continue to be implemented to bring the region into attainment with state standards. While Morro Bay did not participate in the development of the plan, a number of land uses in Morro Bay have direct impacts on air quality in the region.

Toxic Air Contaminants

In addition to criteria air pollutants, toxic air contaminants (TAC) are a second category of air pollutants that can impact public health and safety, even in low concentrations. TAC are regulated by California's Tanner Air Toxics Act of 1983 and the Air Toxic Hot Spot Information and Assessment Act of 1987. These acts establish methods for local air resource boards to research and determine substances that can be considered TAC.

TAC sources in California include diesel, formaldehyde, benzene, acetaldehyde, and polycyclic aromatic hydrocarbons (PAH). The State has identified nearly 200 other TAC. Many of these are a result of arterials with high traffic volumes, which Morro Bay does not contain. However, there are just over a half-dozen stationary source TAC emitters located in Morro Bay.

Both criteria air pollutants and TAC can have greater health impacts on children, the elderly, and people with existing respiratory or cardiovascular conditions. Places with a larger number of these vulnerable people are called sensitive land uses. Sensitive land uses include schools, hospitals, nursing homes, senior care centers, and residential areas. Certain recreational land uses, such as parks and playgrounds, can also be sensitive land uses, as people's respiratory systems can be stressed by air pollution while exercising. CARB recommends policies that will site sensitive land uses away from sources of these pollutants in order to mitigate health impacts.

GOALS AND POLICIES

GOAL C-2: Air quality in Morro Bay continues to improve through local actions and interagency cooperation.

POLICY C-2.1: **State Attainment Levels.** Reach and maintain state attainment levels for PM_{10}.

POLICY C-2.2: **Interagency Cooperation.** Continue to cooperate with the SLOAPCD and other regional, state, and national agencies to enforce air quality standards and improve air quality.

POLICY C-2.3: **Pollutant Sites.** Identify opportunities to locate new air pollutant sources away from the general population.

POLICY C-2.4: **Water Usage and Dust Minimization.** Require grading, landscaping, and construction activities to minimize dust while using as little water as possible.

POLICY C-2.5: **Vehicle Idling.** Explore and implement strategies to minimize vehicle idling.

POLICY C-2.6: **Air Quality in Sensitive Land Uses.** Minimize exposure of sensitive land uses to toxic air contaminants by locating new pollutant sources away from sensitive uses such as schools, hospitals, and residential areas.

Greenhouse Gas Emissions

The risks of climate change include more extreme weather events, rising sea levels, and changes in precipitation levels. These events will impact Morro Bay's natural resources, as many species and habitats are unable to sustain under these changing conditions.

Scientific Basis

Greenhouse gases (GHGs) are byproducts of fossil fuel combustion, waste disposal, energy use, land-use changes, and a variety of other human activities. Major greenhouse gases include carbon dioxide, methane, and nitrous oxide. GHGs trap heat radiated from the earth and reflect it back to the surface, rather than allowing it to escape into space. This phenomenon is known as the greenhouse effect. While this is an important natural process that helps maintain the planet's temperature, increased concentrations of greenhouse gases are leading to increased worldwide temperatures and resulting in global climate

change. Models show that this could lead to global temperature increases ranging from 2 degrees Fahrenheit to 10 degrees Fahrenheit.

Impacts

Climate change has been scientifically proven and internationally recognized, and the Intergovernmental Panel on Climate Change has stated that reductions in GHG emissions are needed in order to prevent catastrophic impacts. The State of California has recognized this threat, stating that it may result in "the exacerbation of air quality problems, a reduction in the quality and supply of water to the state…a rise in sea levels resulting in the displacement of thousands of coastal businesses and residents, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human-related health problems." The State has passed extensive legislation that establishes reduction targets, requires emissions inventories, and promotes renewable energy sources.

Climate change can severely impact natural resources in Morro Bay. The coastline may face frequent inundation as the sea level rises due to thermal expansion and the melting of glaciers and snowpack. This condition will impact groundwater salinity and the size and beauty of local beaches, which are tourist destinations and contribute to the city's tourism economy. Estimates also show that changing precipitation levels may result in diminished water supply. Local agricultural activities would likely be impacted as groundwater resources decrease and certain types of crops can no longer grow in the area.

Morro Bay Greenhouse Gas inventory, Sources, and Goals

In 2008, the City developed a comprehensive greenhouse gas emissions inventory. The results of the inventory showed that in 2005, Morro Bay emitted 67,936 metric tons of carbon dioxide equivalent ($MTCO_2e$) in the baseline year 2005. **Table C-2** shows each sector and its total emissions.

Table C-2:
2005 Greenhouse Gas Emissions

Sector	Emissions ($MTCO_2e$)	Percentage of Total
Transportation	22,506	40.4%
Residential	16,094	28.9%
Commercial/Industrial Energy Use	11,442	20.6%
Off-Road Vehicles and Equipment	2,740	4.9%
Solid Waste	2,695	4.8%
Wastewater	200	0.4%
Total	**55,677**	**100%**

The transportation sector was the largest contributor to emissions and comprised 40 percent of the total. The next largest contributor was the residential sector, with 29 percent of total emissions. Commercial and industrial uses accounted for 21 percent of the total.

The inventory noted that if consumption trends continue, emissions will increase by 37 percent through 2025. In order to mitigate the anticipated impacts of climate change, Morro Bay will need to reduce its contribution to these emissions. Existing planning efforts and state reduction efforts can be combined with future strategies to bring Morro Bay into compliance with emissions reduction goals.

GOALS AND POLICIES

GOAL C-3: Greenhouse gas emissions in Morro Bay are reduced and consistent with state goals.

POLICY C-3.1: **Emissions Reduction Target.** By 2020, reduce community-wide greenhouse gas emissions to 15 percent below 2005 levels. By 2040, reduce greenhouse gas emissions by 53.33 percent below the 2020 target, placing the community on a path to meet the state's 2050 greenhouse gas emissions reduction goals.

POLICY C-3.2: **Climate Action Plan.** Continue to implement and periodically update the City's Climate Action Plan measures to reduce greenhouse gas emissions.

POLICY C-3.3: **Greenhouse Gas Inventory.** Continue to update the greenhouse gas inventory to determine whether emissions are within recommended levels.

POLICY C-3.4: **Greenhouse Gas Reduction Strategies.** Pursue a variety of greenhouse gas reduction strategies across the transportation, residential, waste, and commercial sectors, commensurate with their share of the community's greenhouse gas emissions.

POLICY C-3.5: **Grant Funding.** Seek grant funding to support implementation of greenhouse gas reduction projects for the City, as well as for residents and businesses.

Water Resources and Conservation

Ensuring a sustainable, long-term water supply is an ongoing challenge in Morro Bay and is exacerbated by anticipated growth and climate change impacts.

Local Hydrology

The majority of Morro Bay is located in the Morro Bay Watershed, which covers 46,598 acres. Most of the watershed is used for open space, agriculture, and recreation. Approximately 7 percent of the watershed is urban. Waters in this watershed drain into Chorro and Los Osos creeks. Chorro Creek accounts for about 60 percent of the total land area and drains into the estuary. Chorro Creek's major tributaries include San Bernardo, San Luisito, Walters, Pennington, and Dairy creeks. Discharge from Chorro Creek varies each year. A small portion of the city is located within the Cayucos Creek-Whale Rock Watershed, which drains into Morro Creek and discharges into the Pacific Ocean. Watershed boundaries in Morro Bay are shown in **Figure C-4**.

Figure C-4:
Watershed Boundaries

Water Supply

Approximately 87 percent of Morro Bay's water supply is imported from the State Water Project (SWP) in the Sierra Nevada foothills. Water is purchased through the California Department of Water Resources and supplemented by the Chorro and Morro Valley groundwater basins. This source of water is constrained due to seawater intrusion, overdraft, and water quality issues.

Anticipated changes to Morro Bay's economy, demographics, and environment will place increased strain on the water supply. By 2040, Morro Bay's population is expected to increase by 13 percent. Although Morro Bay has established a growth cap under Measure F, the allowed growth will still require additional water and will impact local water supply and quality. Growth will also affect groundwater supply, because the increased amount of impervious surfaces from additional residential development and infrastructure would cause more water to drain into stormwater drains rather than naturally infiltrating into the ground. The water supply will also be affected by climate change impacts, including extreme heat, wildfires, drought, flooding, and sea level rise. Each of these impacts will stress water supplies by decreasing available water sources and compromising water quality.

In the event of supply reductions or emergency conditions, the City has a desalination plant that can be used to remove nitrates and treat seawater and brackish groundwater. If permit conditions are met, this plant may be able to able to serve as a primary source of water supply in the future, which would further diversify the water supply. However, use of the plant would also require relatively high energy use as compared to other water sources.

Water Restrictions

Morro Bay has implemented water use restrictions since the early 1990s, and subsequent reductions in water use demonstrate the community's ability to operate within a decreased water budget. The City can maintain and increase these reductions by altering requirements related to the use of water-efficient appliances and drought-friendly landscaping in Morro Bay homes and businesses. By working closely with visitor-serving industries such as hotels and restaurants, the City can also help diversify the cost burden away from full-time residents.

Water Quality

As Morro Bay's population increases, growth may compromise water quality as stormwater runoff increases and groundwater infiltration decreases. This increased runoff would also contain more pollutants, which can affect water quality in the coast, bay, estuary, and wetland waters, as well as in groundwater. Pollutants that enter bodies of water may contain bacteria that is detrimental to human and wildlife health.

The City's potable water supply is contingent on the quality of water imported from the SWP and the local groundwater. The City's water supply is tested at multiple locations, and a water quality report is published that outlines the water quality results between SWP water and groundwater. This report details whether the City has exceeded "maximum contaminant levels," which are health and safety requirements determined by the State. If contaminant levels constitute a health and safety issue, this information is reported immediately.

Morro Bay does not currently exceed state health and safety standards for drinking water quality, but nitrate levels in the Chorro and Morro Valley groundwater wells pose health risks for infants and pregnant women. While groundwater sources occasionally exceed allowable contaminant levels, groundwater can be treated or blended with SWP water to reduce contaminant levels below the allowable amount.

Morro Bay's groundwater basins have also intermittently experienced seawater intrusion that impacts shallow groundwater resources, increasing water salinity. Seawater intrusion tends to be limited to dry time periods when wells are used due to Chorro Creek's flow dropping below 1.4 cubic feet per second. This issue has been partially solved by supplementing groundwater with SWP water, but the solution is adding to statewide supply pressures on SWP resources.

Stormwater

Stormwater flows through the planning area into the bay and the Pacific Ocean. In Morro Bay, stormwater is regulated through a National Pollutant Discharge Elimination System (NPDES) permit. Morro Bay's stormwater is considered a "point source," which the US Environmental Protection Agency (EPA) defines as "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged." In order to legally discharge stormwater into a body of water, the City has to obtain an NPDES permit. The City is currently in compliance with the State Water Resources Control Board Water Quality No. 2013-0001 DWQ, resolution R-3-2013-0032. This is a five-year permit and is set to renew in 2018.

Runoff can be a significant contributor to both surface water and groundwater contamination. A 2007 study demonstrated that nitrate-based agricultural fertilizers are the primary source of nitrate contamination in the Morro Valley Groundwater Basin. This is primarily an issue in nearby unincorporated areas of San Luis Obispo County.

The network of storm sewer pipes and open channels in the city is shown in **Figure C-5**.

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Figure C-5:
Stormwater Infrastructure

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Wastewater

Morro Bay's current wastewater treatment plant was designed to only partially treat wastewater to a secondary level and operates under an administratively extended 301(h) waiver. The plant, originally constructed at its present location in 1953, is at the end of its useful life and located in a flood hazard zone, tsunami inundation zone, and potential sea level rise inundation zone. Anticipated growth will also increase wastewater levels, and this could lead to unsanitary discharges and the violation of local water quality permits. However, the imminent removal of the wastewater flows from Cayucos from the waste stream treated at the Morro Bay plant will slow the increase in wastewater levels in Morro Bay. Morro Bay is currently developing plans for a new water reclamation facility to replace the existing wastewater treatment plant, which could expand water supply options through recycled water.

The Sewer System Management Plan was adopted in 2009 and last updated in 2014; the plan is in compliance with state requirements for sanitary sewer system operation. The City has performed two audits of the plan to ensure effectiveness and compliance with state standards.

OneWater Morro Bay

Morro Bay's water issues are currently addressed by separately managed plans that have significant overlap. The City is implementing a new approach to integrate these plans into one cohesive document titled "OneWater Morro Bay" to address all water issues and efficiently maximize the use of available resources. OneWater Morro Bay addresses the requirements of the following City water plans:

- Water Reclamation Facility Master Plan
- Master Water Reclamation Plan
- Urban Water Management Plan
- Sanitary Sewer Management Plan
- Wastewater Collection System Master Plan
- Water Master Plan
- Stormwater Master Plan

Key Issues

Morro Bay's primary water issues include:

- Excess nitrogen in agriculture runoff, which contributes to pollution and water quality issues;
- Seawater intrusion in groundwater wells, which limits the water supply during drought conditions;
- Anticipated impacts of climate change on the Morro Bay Estuary; and
- Complicated and overlapping plans that limit the City's ability to integrate water management approaches.

While the City has a number of plans and policies to manage existing and anticipated water issues, additional implementation will be needed to ensure Morro Bay is prepared for growth and changing climate conditions.

GOALS AND POLICIES

GOAL C-4: Morro Bay water is safe, available, and used in an environmentally responsible manner.

POLICY C-4.1: Water Supply. Diversify the City's water supply.

POLICY C-4.2: Water Supply Monitoring. Monitor demands on the water system and continue to limit future growth to correspond to the available water supply.

POLICY C-4.3: Water Restrictions. Continue to impose restrictions on water use.

POLICY C-4.4: New Development and Reuse Projects. Manage new dev reuse projects and existing land uses to mitigate impacts an improvements to the City's water systems.

Commented [KK7]: Let's include some policy language addressing the need for new development to be served by an adequate and sustainable water supply, along with additional requirements for subdivisions. We just approved an amendment for SLO County addressing these issues, and the language of which is provided at the end for inclusion.

~~**POLICY C-4.5: Water System Expansion.** Maintain and expand water supply and distribution facilities as required to facilitate buildout.~~

Commented [KK8]: 30254 of the Coastal Act requires development to be in line with adequate services, essentially to not induce sprawl. I would delete this and just insert in other policies that new and planned development shall be served by adequate and sustainable water and sewer services.

~~**POLICY C-4.6:**~~**POLICY C-4.5: Water Conservation Features.** incorporation of feasible and innovative water conservation features in the design of new development and reuse projects. Minimize economic hardship on existing residents and businesses.

~~**POLICY C-4.7:**~~**POLICY C-4.6: Water Conservation Practices.** Continue to encourage maximum water conservation in existing land uses, and provide incentives that encourage building owners and homeowners

associations to complete water efficiency retrofits. Minimize economic hardship on residents and businesses.

~~POLICY C-4.8:~~POLICY C-4.7: **Recycled Water.** Encourage the use of recycled water for construction, grading, and other non-contact uses where recycled water is available or expected to be available.

~~POLICY C-4.9:~~POLICY C-4.8: **Public Education.** Partner with and provide information to community organizations, residents, and businesses regarding methods to reduce water use.

~~POLICY C-4.10:~~POLICY C-4.9: **Desalination Plant.** Continue to operate the desalination plant as needed for emergency or non-routine purposes to ensure that the City's minimum water quality and quantity standards are met.

~~POLICY C-4.11:~~POLICY C-4.10: **Desalination Energy Usage.** Evaluate the desalination plant and its energy usage to determine whether it may serve as a major water source in the future.

~~POLICY C-4.12:~~POLICY C-4.11: **Drainage Technologies.** Require that new development projects employ innovative and efficient drainage technologies that comply with federal and state water quality requirements and reduce runoff and water quality impacts to downstream environments.

~~POLICY C-4.13:~~POLICY C-4.12: **Pollutant Runoff.** Reduce pollutant runoff from agriculture and new development to marine biological resources and wetlands by requiring the use of the most effective best management practices currently available.

Energy Resources

The way energy is obtained is one of several determinants of community health. Energy generated from fossil fuels is the largest contributor to greenhouse gas emissions, and such fuels are a vulnerable and nonrenewable source of energy.

In the 1950s, the Pacific Gas and Electric Company (PG&E) built a power plant in Morro Bay. In 2006, the plant was sold to Dynegy, which operated the plant until 2014. At that point, Dynegy determined that the power plant could no longer be profitable, and it closed the plant. Electricity and natural gas, supplied by PG&E, are still used for residential and nonresidential activities in Morro Bay.

Energy Conservation

In order to reduce greenhouse gas emissions and fossil fuel consumption, energy conservation will be necessary. The State has adopted Title 24, which includes comprehensive energy conservation standards that must be incorporated into all new development projects, including remodeling. These standards are implemented in Morro Bay through the building permit review process. Energy conservation can also be achieved in individual homes and businesses through increased energy efficiency. Incentives and rebates are available to households that wish to complete upgrades or retrofits to improve energy efficiency.

Renewable Energy Production and Use

Morro Bay does not currently have its own energy-related uses, but it can explore options for renewable energy production and consumption. Options could be incentivized in new development projects and supported through Community Choice Aggregation (CCA), which allows consumers to buy into alternative energy supplies. These options would limit the community's strain on nonrenewable energy sources and decrease sources of greenhouse gas emissions.

Section 30413 of the Coastal Act establishes requirements for coastal energy facilities, including solar arrays and wave energy converters, which are forms of renewable energy. This section dictates that the Coastal Commission and the California Energy Commission (CEC) participate in decisions regarding these requirements.

GOALS AND POLICIES

GOAL C-5: Morro Bay is a leader in energy innovation and sustainable usage.

POLICY C-5.1: **Weatherization Incentive Programs.** Promote low-cost or free weatherization programs for disadvantaged residents, including low-income families and elderly individuals.

POLICY C-5.2: **Energy Efficiency Standards.** Construct all new City facilities to be more energy efficient than the minimum energy efficiency standards in the California Building Standards Code, and achieve zero net energy performance for new City facilities when possible.

GOAL C-6: Energy available to Morro Bay residences, businesses, and public buildings is renewable and sustainable.

POLICY C-6.1: **Renewable Energy Incentive Programs.** Create incentives that promote renewable energy systems as a component of new development or reuse projects.

POLICY C-6.2: **Renewable Energy in Home and Commercial Uses.** Encourage the use of solar energy systems in homes and commercial businesses as a form of renewable energy, including in support of zero net energy goals.

POLICY C-6.3: **Renewable Energy in Municipal Uses.** Maximize renewable energy capacity on municipal property and renewable energy use in City-sponsored projects and activities.

POLICY C-6.4: **Community Choice Aggregation.** Support Community Choice Aggregation (CCA) if this is determined to be a cost-effective alternative.

POLICY C-6.5: **Partnerships.** Support public/private partnerships to implement energy efficiency, energy storage, and microgrid development to achieve cost savings, reduce energy use, and improve energy reliability.

Waste Management

Solid Waste

Chapter 8.16 of the Morro Bay Municipal Code outlines procedures and regulations for solid waste collection. Morro Bay has mandatory garbage collection and voluntary green waste, food waste, and recycling collection. Certain types of solid waste disposal are illegal, including burying or burning waste materials. The City contracts with Morro Bay Garbage Service to provide residential and commercial waste collection services. Each year, Morro Bay Garbage allows residents to put out additional garbage at no extra cost for spring and fall "cleanup days."

State Goal

In 2015, the State of California set a goal to divert 75 percent of all solid waste through composting, recycling, or source reduction by 2020. This goal requires coordinating current landfill diversion programs with materials management programs to achieve the highest and best use of all waste materials in the state. To achieve this goal, 23 million additional tons would need to be recycled, reduced, or composted by 2020. Local jurisdictions are required to participate in efforts to divert or reduce significant portions of their waste.

Morro Bay as a Zero Waste Community

Morro Bay has the goal of becoming a zero waste community through citywide efforts to increase waste diversion and reduction. This goal would comply with state law and assist in achieving statewide goals.

GOALS AND POLICIES

GOAL C-7: Morro Bay is a zero waste community.

POLICY C-7.1: **Disposal Rates.** Continue to reduce disposal rates to zero.

POLICY C-7.2: **Waste Reduction and Diversion.** Incentivize household waste reduction and diversion.

POLICY C-7.3: **Diversion in Multi-Family and Visitor-Serving** Uses. Improve waste diversion options in multi-family and visitor-serving accommodations.

POLICY C-7.4: **Public Education.** Provide public information regarding waste reduction and diversion strategies to households.

POLICY C-7.5: **Partnerships.** Partner with local businesses and organizations to reduce waste in the community through public information, programs, and incentives.

Visual Resources and Viewsheds

Scenic Resources

Visual resources and viewsheds in Morro Bay include natural and man-made features such as vistas, scenic corridors, and the visual character of various parts of the built environment. Some of the most iconic resources in Morro Bay include Morro Rock, the former Dynegy power plant, downtown Morro Bay, and various coastal resources including the beach, sandspit, harbor, and the salt marsh.

Scenic Vistas and Viewpoints

A scenic vista is a publicly valued place that offers views of an aesthetically valued landscape. These vistas can be officially or unofficially designated. While there are no officially designated scenic vistas in Morro Bay, several views serve this purpose and are valued by the community. The specific public views that should be protected include general views of the hillside backdrop; the hills and ridgelines to the east of the city, especially in North Morro Bay; north toward Morro Rock; north toward Cayucos; south toward the Morro Bay Estuary; and south toward Los Osos and the Irish Hills.

When assessing views in and of Morro Bay, it is important to consider:

- Enhancement of the city's character through the use of building materials and the scale of the structures.
- Compatibility with surrounding structures.

- Compatibility with the natural features of the area (i.e., topography).
- Preservation of public views.
- Enhancement and definition of the city's image.
- Uniqueness of the city's image.
- Maintenance of scenic highway conditions.
- Any additional view considerations as requested by regulatory agencies.

Regional plans may also specify additional views that should be protected. For example, San Luis Obispo County's Estero Area Plan establishes protection of the scenic vista of the Morros, which are located in and near Morro Bay.

Figures C-6 and C-7 show Viewpoints and Scenic Views in Morro Bay.

Scenic Highways and Viewsheds

The California Department of Transportation (Caltrans) awards special status to scenic highways in the state. Highway 1 is an officially designated scenic highway, and a portion of the highway is located in the Morro Bay planning area. The highway is also designated as a scenic corridor in the County's Estero Area Plan. Other highways in the area, including Highway 41 between Highway 1 and US 101, have not been officially designated but may be eligible for this designation. Viewshed conditions in these areas may need to be improved by eliminating obstructions or improving facility quality and cleanliness.

Figure C-6:
Viewpoints

Greenprint

Figure C-7:
Scenic Views

GOALS AND POLICIES

GOAL C-8: The aesthetic and visual natural resources in Morro Bay are protected to preserve the community's identity.

POLICY C-8.1: **Public View Protection.** Identify and protect the public view points, corridors, and viewsheds from which scenic views can be observed.

POLICY C-8.2: **Viewshed Protection Guidelines.** Designate and protect official viewsheds through viewshed protection design guidelines.

POLICY C-8.3: **Lighting Standards.** Revise lighting standards to prevent glare and protect views.

POLICY C-8.4: **Degraded Viewsheds.** Identify degraded viewsheds and other issues affecting viewshed quality.

POLICY C-8.5: **Massing, Height, and Orientation Requirements.** Require massing, height, and orientation of new development or construction to be sited and designed to preserve public coastal views to and along the ocean and scenic areas.

POLICY C-8.6: **Preservation of Visual Character.** Accommodate economic growth and new buildings while preserving the visual character of the natural community.

POLICY C-8.7: **Lighting Levels.** Preserve skyward nighttime views and lessen glare to minimize lighting levels in open spaces and along the coastline.

POLICY C-8.8: **Signage, Infrastructure, and Utility Requirements.** Encourage signage, infrastructure, and utilities that do not block or detract from views of scenic vistas. New development shall have utilities placed underground and outside of public view.

POLICY C-8.9: **Public and Private Landscaping.** Ensure new public or private landscaping considers public scenic views and vistas, and encourage landscape installations that protect or enhance those views and vistas, including ensuring that such landscaping does not obstruct public scenic views and vistas at maturity.

Greenpr

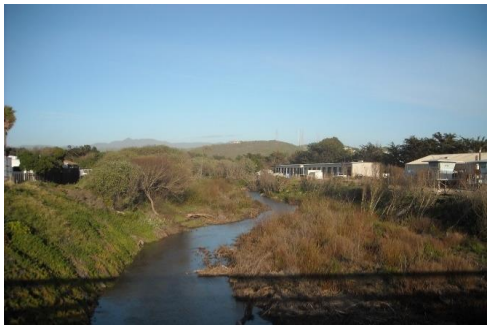
Commented [KK9]: Should also have policies addressing ridgelines/silhouetting.

Commented [KK10]: For both of these policies, I would be more specific about what constitutes/defines a public view point, corridor, viewshed, scenic view. I can provide some language from other LCPs on this point.

Coastal Resources

Morro Bay is well known for its coastline and coastal resources. In 1994, the bay was designated as a state estuary, and in 1995, it became an estuary of national significance.

Wetlands and Estuaries



An estuary is a coastal body of water that is usually semi-enclosed by land with open, partially obstructed, or intermittent exchange with the ocean. The Morro Bay Estuary is located at the southernmost end of the city near Morro Bay State Park. The estuary surrounds the terrain along the water in the park and intergrades with coastal salt marsh communities and other water sources. The estuary is important to the environment because it is home to rare and important species of fish, birds, and other animal and plant species.

Wetlands are also located within the coastal zone and may be covered with periodically or permanently shallow water. There are many different types of wetland environments in Morro Bay. These include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, and mudflats. Wetlands are important to the environment because they serve as riparian habitats that protect the coast from excessive erosion and flooding. They also help purify water sources by filtering out sediments and decomposing vegetative matter.

Wetlands and estuaries are considered sensitive coastal resource areas and special treatment areas in Sections 30116 and 30118.5 of the Coastal Act. Pursuant to Section 30115 of the Coastal Act, estuaries are also included in the Coastal Commission's definition of "sea," along with a variety of other coast water resources that warrant special protection. The Coastal Act identifies regulatory guidance for these resources in several sections as summarized below.

Section 30231: Biological Productivity; Water Quality

Section 30231 states that the biological productivity and water quality of resources such as estuaries and wetlands should be maintained and restored through a variety of means in order to minimize the adverse effects of wastewater, runoff, and groundwater depletion. Wastewater reclamation, maintenance of natural buffers, and minimization of natural stream alteration should be encouraged.

Section 30233: Diking, Filling, or Dredging; Continued Movement of Sediment and Nutrients

Section 30233 states that these practices will only be permitted in estuaries and wetlands when there is no less damaging alternative and where feasible mitigation measures have been provided to minimize the adverse impacts. Only certain types of diking, filling, and dredging activity will be permitted in these areas.

Section 30255: Priority of Coastal Dependent Developments

While the Coastal Act allows coastal-dependent uses to take priority over other development near the shoreline, these uses are not permitted in a wetland.

Section 30411: Department of Fish and Wildlife; Management Programs; Wetlands; Aquaculture; Coastal Sites

One portion of Section 30411 states that the Department of Fish and Wildlife (previously known as two separate entities called the Department of Fish and Game and the Fish and Game Commission) may impose different or additional standards for wetlands. The City may not impose any controls that duplicate or exceed regulatory controls established by those agencies.

Section 30607.1: Wetlands Dike and Fill Development; Mitigation Measures

When these activities are permitted (pursuant to Section 30233), mitigation measures are required to include restoration, replacement, or in-lieu fees. These measures should be completed prior to the start of dike and fill activities.

Figure C-8 shows wetlands and drainages in Morro Bay.

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Figure C-8:
Wetlands and Drainages in Morro Bay

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GOALS AND POLICIES

GOAL C-9: The coastal resources of Morro Bay are fully protected and prioritized.

POLICY C-9.1: **Preservation of Morro Bay Estuary.** Ensure the preservation and health of the Morro Bay Estuary.

POLICY C-9.2: **Interagency Cooperation.** Work with other local agencies, including the County of San Luis Obispo and the US Army Corps of Engineers, to ensure the continued maintenance of the Morro Bay navigation channels.

POLICY C-9.3: **Development in Sensitive and Protected Communities.** Prohibit development that jeopardizes or diminishes the integrity of sensitive or protected coastal plant and animal communities, accounting for expected changes from sea level rise.

POLICY C-9.4: **Construction of Shoreline Structures.** Limit the construction of shoreline structures that would substantially alter existing land forms to uses that meet any of the following criteria:

a. Protect existing development.

b. Have ensured stability without depending on shoreline protection devices.

c. Serve as public recreation areas.

d. Serve as coastal-dependent uses.

POLICY C-9.5: **Diking, Dredging, Filling, and Shoreline Protection.** Minimize the impacts of diking, dredging, filling, and shoreline protection developments within the harbor area.

Commented [KK11]: Let's discuss in more detail.

Other Resources

Mineral Resources

While greater San Luis Obispo County contains a variety of mineral resources that are managed and extracted, there are no existing mineral extraction operations in Morro Bay. The state geologist has not designated any areas in Morro Bay that have mineral resources of statewide or regional significance.

Cultural and Historic Resources

Morro Bay is located in the Central Coast archaeological region, which is defined as stretching from south of San Francisco Bay to the northern edge of the Southern California Bight. Morro Bay was historically occupied by the Obispeño Chumash and the Salinan tribes. Recent data suggests that hunting, gathering, and aquatic activity was important to those living in this region throughout history. Limited ethnographic information is available about the Obispeño Chumash. They were eventually decimated by European colonization and missionization, but they are an important part of Morro Bay's history and culture. Due to its location in proximity to various water and food sources, Morro Bay likely has many historic and cultural resources.

According to the Office of Historic Preservation, there are no resources or areas listed as California Points of Interest in Morro Bay. There are also no resources listed in the National Register of Historic Places or the California Register of Historical Resources. A number of buildings in Morro Bay are over 45 years of age and may be considered significant cultural resources. It is also likely that a number of paleontological and archaeological resources are present in Morro Bay.

Since most archaeological and paleontological resources are not uncovered or readily seen until grading or construction occurs, it is difficult to site developments appropriately based on the location of archaeological/cultural resources. Upon developing an inventory, the City can take preventive measures to ensure development siting is sensitive to these resources.

The history and culture of Morro Bay is a priority in the community, and the built environment should reflect this importance. This objective can be achieved through adaptive reuse, wherein the City can encourage development projects that preserve historical and cultural legacies. Older buildings that may be considered significant resources can be repurposed for use by the community. This approach is considered more sustainable and culturally sensitive than simply constructing new buildings. The City can also achieve this goal by establishing an overlay zone for cultural resources. This overlay zone would apply to sites where sensitive archaeological and/or paleontological resources have been

identified. New development in the overlay zone would still be required to comply with requirements in the base zone.

GOALS AND POLICIES

GOAL C-10: Cultural and historic resources are identified for protection and showcased as a vital part of Morro Bay history.

POLICY C-10.1: Historic and Cultural Resources Strategy. Develop a plan to address historic and cultural resource issues in Morro Bay, which may include conducting and updating inventories, exploring certification options, and developing context statements.

POLICY C-10.2: Interagency Cooperation. Work with the Historical Society of Morro Bay and other local groups on historic preservation objectives.

POLICY C-10.3: Protection of Cultural Resources. Ensure the protection of cultural and archaeological resources during development, construction, and other similar activities.

POLICY C-10.4: Cultural Resources Overlay. Develop a cultural resources overlay to protect archaeological and paleontological resources in Morro Bay.

This chapter discusses a lot of different issues. Here are some sample policies for inclusion addressing them:

Preserve and maintain wetlands in the Coastal Zone as productive wildlife habitats and protect wetlands against significant disruption of habitat values. The only allowed uses within wetlands shall be those specified in Coastal Act §30233. Development shall be set back from wetlands a minimum of 100 feet. A wider buffer may be required based on the results of a site assessment that finds a buffer greater than 100 feet in width is necessary to protect wetland resources from the impacts of the proposed development, including construction and post- construction impacts. Existing development may be redeveloped provided it does not create new impacts nor increase impacts to wetlands.

Preserve and maintain coastal streams, and limit development within streams to those specifically allowed per Coastal Act §30236. Development shall be set back from streams through buffers of a sufficient width to protect streams from the impacts of adjacent uses, including impacts from construction and post-

construction activities, and such buffers shall be maintained in a natural condition. The only development and uses allowed within the buffer are those that help to protect stream resources, such as plantings for screening, buffering and habitat continuity/enhancement. The buffer shall be the following, whichever is wider on both sides of the stream:

a. The area extending 50 feet from the outer edge of the riparian vegetation (measured perpendicularly from the direction of the stream itself); or

b. The area extending 100 feet from the top of the stream bank (measured perpendicularly from the direction of the stream itself); or

c. Wider setback distances as recommended by a site-specific biological site assessment.

Certain trees are "major vegetation," where the removal of which constitutes development and requires a Coastal Development Permit. A Coastal Development Permit is required for removal of all native trees including all Gowen Cypress regardless of size, Coast Live Oak, Monterey Cypress, Shore Pine, Torrey Pine, and Monterey Pine six (6) inches or greater in trunk diameter when measured at 54 inches above grade. New tree planting shall be an on-going effort in order to replace diseased and dead Monterey pine, Monterey cypress and coast live oak trees, taking care that new plantings do not adversely affect public views. Replanting of a tree as replacement of an existing tree is required. Dead trees (snags) on City property within the Coastal Zone should be retained, where possible, to provide habitat, including for cavity-nesting birds.

Wetlands shall be considered as Environmentally Sensitive Habitat Areas, and governed by Coastal Act policies 30233, and 30240. No alteration of freshwater wetlands shall be allowed, except for maintenance dredging and similar activities essential for restoration and/or enhancement of natural habitats, as well as other uses and development specified in the Biological Resources and Environmentally Sensitive Habitat Areas chapter of this Land Use Plan, and only where there is no feasible less environmentally damaging alternative and where feasible mitigation measures have been provided to minimize adverse environmental effects.

To reduce the potential for degradation or impairment of water quality, the City shall continue to investigate and implement new measures to reduce potential pollutants in storm water and irrigation runoff and require the following:

- No diking, filling, dredging, or other uses inconsistent with the terms of Coastal Act Policy 30233 shall be allowed in the City's tidelands.

- To the maximum extent feasible, development shall include specific measures to help reduce potential pollutants and water quality impairment, including controlling the disposal of chemicals and hazardous materials, controlling the use of pesticides and herbicides, maintaining existing storm water capture programs, applying low impact development designs and requiring on-site retention and/or reuse of runoff. The City shall utilize ecologically responsible pest control methods and integrated pest management to the extent feasible on public property and encourage this practice on private property.

- Drainage plans and erosion, sediment and pollution control measures shall be required as conditions of approval of every application for new development that has the potential to impair water quality.

  Construction phase storm water pollutant controls shall be required for development that has the potential for water quality impairment, including erosion controls, sediment traps and filtering of off-site storm water flows, capture of site-generated pollutant sources, street sweeping of dirt tracked off-site, litter control, post-construction monitoring, and other best management practices. Construction-phase water quality impacts shall be avoided by minimizing the disturbed area, phasing grading activities, implementing soil stabilization and pollution prevention measures, and preventing unnecessary soil compaction. Development that has the potential for water quality impairment shall, at a minimum, be designed to meet National Pollutant Discharge Elimination System stormwater runoff requirements.

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to species and areas of special biological significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse

effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protection riparian habitats, and minimizing alteration of natural streams.

Development shall minimize new impervious surfaces, especially impervious areas directly connected to water and marine resources, and, where feasible, increase the area of pervious surfaces in re-development to reduce runoff.

Plan, site, and design development in a manner that maintains or enhances on-site infiltration, reduces runoff, minimizes the transport of pollutants in runoff generated from the development, and recharges groundwater. Development shall ensure that runoff is appropriately collected, filtered, and treated by Best Management Practices (BMPs) to minimize pollutant loading to the maximum degree feasible.

Developments of Water Quality Concern, including gas stations/carwashes, and industrial development are those that have a greater potential for adverse impacts to water quality and hydrology due to the extent of impervious surface area, type of land use, and/or proximity to coastal waters, and require additional and context specific "best management practices" (BMPs) to protect and enhance water quality.

To the maximum extent feasible, the City shall reserve a sufficient quantity of water to accommodate coastal priority uses designated by the Land Use Plan (i.e. public access and recreational uses and visitor-serving uses) from its allotted water supply. This allocation shall include considerations of constrained and unconstrained water demand, taking into account sources and timing of new water supply, as well as the City's overall land use and economic policies.

Development shall only be approved if it is first clearly demonstrated that the development will be served by an adequate existing water allocation and sustainable long-term water supply. Individual private water systems, except for rainwater collection are prohibited.

Recycled wastewater shall be used as much as possible to the extent recycled water is reasonably available for such purpose.

Wastewater disposal systems which minimize or eliminate marine resource pollution, and which provide for reclamation of wastewater for reuse, shall be encouraged.

Development shall only be approved if it is first clearly demonstrated that the additional wastewater discharge associated with such development will not significantly adversely impact coastal resources, including marine resources. New development, including redeveloped structures, shall connect to the public wastewater treatment system.

The City shall continue to pursue the development of sustainable water supplies and develop new infrastructure to the extent feasible, within locations not susceptible to coastal hazards.

The City shall maximize potential sources of new water by utilizing, where feasible, reclaimed wastewater and captured runoff for open-space irrigation. Development approval shall, as appropriate, include dual piping systems designed to allow for use of reclaimed water for irrigation and toilets in the future.

New or expanded water or wastewater facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the Land Use Plan.

The City shall consider the relocation of critical water and wastewater infrastructure, as necessary and feasible, to protect those services from the effects of sea level rise and other coastal hazards.

The City shall encourage water conservation measures for new development to the greatest possible extent including, but not limited to, the use of water conservation fixtures and equipment including but not limited to high-efficiency washing machines and dishwashers, recirculation pumps, low-flow showerheads, shower shut-off valves, faucet aerators, etc., off-set of proposed water use, drip or microspray irrigation, storm water capture, greywater collection and reuse and native drought resistant landscaping.

In order to minimize impacts from coastal hazards as well as to avoid impacts to water quality, public access, and scenic and visual resources, there shall be no net increase in beach outfalls and the City shall seek and pursue opportunities to consolidate and/or eliminate reliance on storm water outfalls that convey storm water onto the beach and/or into Morro Bay or Pacific Ocean.

Outfalls that are below sea level, or are likely to be below sea level with sea level rise and/or high storm tides, shall be designed to prevent the entry of sea water and sand to the extent practical, and shall be regularly monitored and maintained to avoid marine resource degradation. Further, outfalls shall be sited and designed, to minimize public view impacts including as seen from the beach and other shoreline public viewing areas as much as possible, including through concealing, screening, and camouflaging outfalls, and through the use of natural storm and energy dissipaters to reduce erosion and improve visual appearance.

The City shall implement, where feasible, "best management practices" (BMPs) in parking areas near the coast to capture sediments and other pollutants, to filter and treat runoff prior to discharge, and to incorporate water quality protection features, such as Low Impact Development designs, into new or upgraded storm water system facilities and adjacent areas.

Adequate Public or Private Service Capacity

New development (including divisions of land) shall demonstrate that adequate public or private service capacities, including water supply and wastewater disposal, are available to serve the proposed development. Priority shall be given to infilling within existing subdivided areas. Adequate public or private service capacity for water and wastewater is demonstrated when, prior to permitting all new development, a finding is made that the development will be served by an identifiable, available, and long-term sustainable water supply and wastewater treatment system in a manner that does not impair coastal resources, including by accounting for the already outstanding commitment to existing development, as well as potentially allowed development on vacant lots.

Lack of adequate public and/or private services is grounds for denial of the project or reduction of the density that could otherwise be approved.

Limited Public and/or Private Service Capacity and the Resource Management System

The county will use the coastal development permit review process for new development to evaluate consider where adequate public and/or private service capacities exist or can be readily developed to support new land uses. Permitted public service expansions shall ensure the protection of coastal natural resources, including the biological productivity of coastal waters. Where there is limited and/or inadequate public and/or private service capacity, uses having priority under the Coastal Act shall not be precluded by the provision of those limited services to non-priority uses.

Priority Development

Where there is limited public and/or private service capacity, the following land uses shall have priority for those services in accordance with the Coastal Act and be provided for in the allocation of services in proportion to their recommended land use within the service area.

a) Uses which require location adjacent to the coast (coastal-dependent uses).
b) Essential public services and basic industries vital to the economic health of the region, state or nation including agriculture, visitor-serving facilities and recreation.

Priority for development of such uses shall be given to lands that are already subdivided with services available, and then to unsubdivided parcels with services available. Subdivision is prohibited outside of existing developed areas where there is limited public and/or private service capacity.

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